

=> fil reg

FILE 'REGISTRY' ENTERED AT 14:56:24 ON 30 DEC 2008

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STRUCTURE FILE UPDATES: 29 DEC 2008 HIGHEST RN 1091682-77-7

DICTIONARY FILE UPDATES: 29 DEC 2008 HIGHEST RN 1091682-77-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

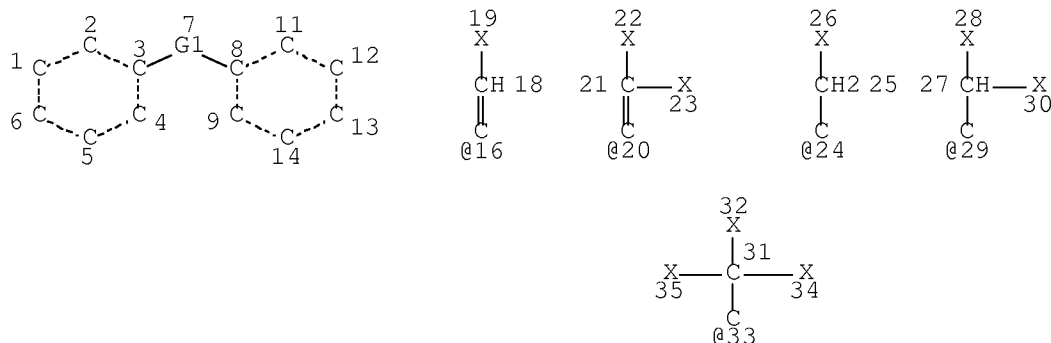
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

=> d sta que l28

L15 STR



VAR G1=16/20/24/29/33

NODE ATTRIBUTES:

CONNECT IS M1 RC AT 6

CONNECT IS M1 RC AT 13

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS UNLIMITED

GRAPH ATTRIBUTES:

RSPEC 4 8

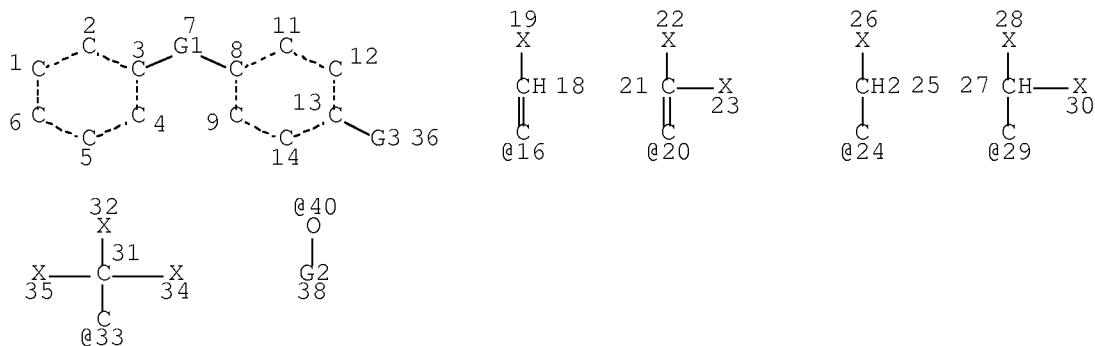
NUMBER OF NODES IS 32

STEREO ATTRIBUTES: NONE

L17 1474 SEA FILE=REGISTRY CSS FUL L15

L18 1405 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L17/COM

L26 STR



VAR G1=16/20/24/29/33

VAR G2=AK/ID/CB

VAR G3=O/H/X/40/AK/ID

NODE ATTRIBUTES:

CONNECT IS M1 RC AT 6

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS UNLIMITED

GRAPH ATTRIBUTES:

RSPEC 4 8

NUMBER OF NODES IS 35

STEREO ATTRIBUTES: NONE

L28 959 SEA FILE=REGISTRY SUB=L18 CSS FUL L26

100.0% PROCESSED 1405 ITERATIONS (11 INCOMPLETE) 959 ANSWERS

SEARCH TIME: 00.00.01

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 14:56:46 ON 30 DEC 2008

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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FILE COVERS 1907 - 30 Dec 2008 VOL 150 ISS 1

FILE LAST UPDATED: 29 Dec 2008 (20081229/ED)

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 178 bib abs hitstr tot

L78 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:1154645 HCAPLUS Full-text

DN 142:74999

TI ~~Flame retardant~~ polymers, making monomers and polymers, and articles

IN Tour, James M.; Jurs, Joshua L.; Stephenson, Jason J.

PA William Marsh Rice University, USA

SO PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004113265	A1	20041229	WO 2004-US19414	20040618 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 20060178462	A1	20060810	US 2005-560291	20051212 <--
PRAI	US 2003-480349P	P	20030620 <--		
	WO 2004-US19414	W	20040618 <--		

OS MARPAT 142:74999

AB The ~~flame retardant~~ properties of the polymers are provided by functionality in pendant groups attached to a polymer backbone (as opposed to the polymer backbone itself possessing ~~flame retardant~~ properties). Polymerizable monomers such as [2-(p-hydroxyphenyl)-2'-(phenyl)-1,1-dichloroethene]acrylate were prepared

IT 129078-21-3P

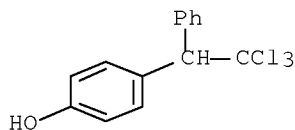
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(dehydrohalogenation; ~~flame retardant~~ polymers

based on functional asym. chlorine-containing bisphenol monomers)

RN 129078-21-3 HCAPLUS

CN Phenol, 4-(2,2,2-trichloro-1-phenylethyl)- (CA INDEX NAME)



IT 815598-65-3P

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(~~flame retardant~~ polymers based on functional asym.)

chlorine-containing bisphenol monomers)

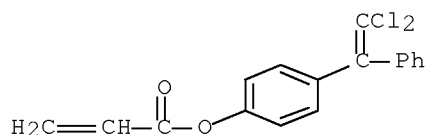
RN 815598-65-3 HCAPLUS

CN 2-Propenoic acid, 4-(2,2-dichloro-1-phenylethenyl)phenyl ester,
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 815598-64-2

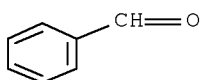
CMF C17 H12 Cl2 O2



IT 100-52-7, Benzaldehyde, reactions 108-95-2, Phenol,
reactions 111-77-3, Diethylene glycol monomethyl ether
RL: RCT (Reactant); RACT (Reactant or reagent)
(~~flame retardant~~ polymers based on functional asym.
chlorine-containing bisphenol monomers)

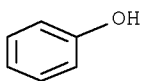
RN 100-52-7 HCAPLUS

CN Benzaldehyde (CA INDEX NAME)



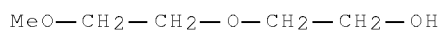
RN 108-95-2 HCAPLUS

CN Phenol (CA INDEX NAME)



RN 111-77-3 HCAPLUS

CN Ethanol, 2-(2-methoxyethoxy)- (CA INDEX NAME)



IT 815598-64-2P

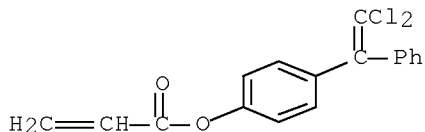
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)

(preparation and polymerization; ~~flame retardant~~ polymers based
on functional asym. chlorine-containing bisphenol monomers)

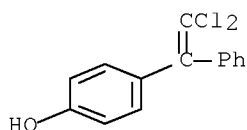
RN 815598-64-2 HCAPLUS

CN 2-Propenoic acid, 4-(2,2-dichloro-1-phenylethenyl)phenyl ester (CA INDEX

NAME)



IT 110470-93-4P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (reaction with acryloyl chloride; flame retardant
 polymers based on functional asym. chlorine-containing bisphenol monomers)
 RN 110470-93-4 HCAPLUS
 CN Phenol, 4-(2,2-dichloro-1-phenylethenyl)- (CA INDEX NAME)



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

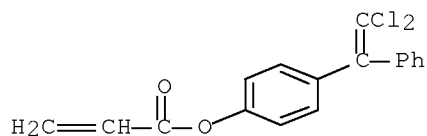
L78 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:815792 HCAPLUS Full-text
 DN 142:447654
 TI Vinyl bisphenol C for flame retardant polymers
 AU Stephenson, Jason J.; Jurs, Joshua L.; Tour,
 James M.
 CS Departments of Chemistry and Mechanical Engineering and Materials Science,
 Center for Nanoscale Science and Technology, Rice University, Houston, TX,
 77005, USA
 SO SAMPE Conference Proceedings (2004), 49(SAMPE 2004), 530-534
 CODEN: SCPADK
 PB Society for the Advancement of Material and Process Engineering
 DT Journal; (computer optical disk)
 LA English
 AB Inherently flame-retardant polymers were prepared by radical polymerization of
 acrylates or vinyl derivs. of 1,1-dichloro-2,2-diphenylethylene which
 comprised structural elements analogous to bisphenol C 2. The polymers had
 high mol. wts. (number-average mol. wts. in the range of 110,000-654,000) and
 good processability. The polymers had V-0 flammability rating using standard
 UL-94 tests with total heat release values of 10-12 kJ/g and 20% of char
 formation. With continued heating, the polymers tended to char without
 burning, no synergist being needed.
 IT 815598-65-3P 851296-06-5P
 RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic
 preparation); PREP (Preparation); USES (Uses)
 (flame-retardant polymers of acrylates and vinyl
 derivs. of dichlorodiphenylethylene)
 RN 815598-65-3 HCAPLUS
 CN 2-Propenoic acid, 4-(2,2-dichloro-1-phenylethenyl)phenyl ester,

homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 815598-64-2

CMF C17 H12 Cl2 O2



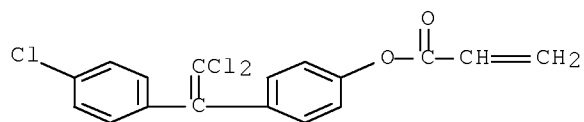
RN 851296-06-5 HCAPLUS

CN 2-Propenoic acid, 4-[2,2-dichloro-1-(4-chlorophenyl)ethenyl]phenyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 851295-95-9

CMF C17 H11 Cl3 O2



IT 851296-08-7F

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(flame-retardant polymers of acrylates and vinyl
derivs. of dichlorodiphenylethylene)

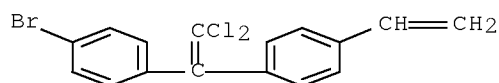
RN 851296-08-7 HCAPLUS

CN Benzene, 1-bromo-4-[2,2-dichloro-1-(4-ethenylphenyl)ethenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 851296-01-0

CMF C16 H11 Br Cl2



IT 851296-08-7DP, coupling reaction products with phenylacetylene

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(flame-retardant polymers of acrylates and vinyl
derivs. of dichlorodiphenylethylene)

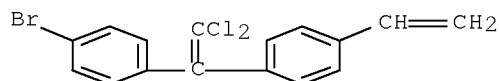
RN 851296-08-7 HCAPLUS

CN Benzene, 1-bromo-4-[2,2-dichloro-1-(4-ethenylphenyl)ethenyl]-, homopolymer
(9CI) (CA INDEX NAME)

CM 1

CRN 851296-01-0

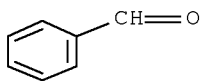
CMF C16 H11 Br Cl2



IT 100-52-7, Benzaldehyde, reactions 104-88-1,
4-Chlorobenzaldehyde, reactions 1122-91-4, 4-Bromobenzaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(~~flame-retardant~~ polymers of acrylates and vinyl
derivs. of dichlorodiphenylethylene)

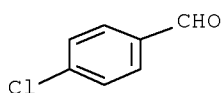
RN 100-52-7 HCAPLUS

CN Benzaldehyde (CA INDEX NAME)



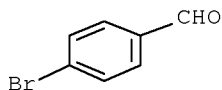
RN 104-88-1 HCAPLUS

CN Benzaldehyde, 4-chloro- (CA INDEX NAME)



RN 1122-91-4 HCAPLUS

CN Benzaldehyde, 4-bromo- (CA INDEX NAME)



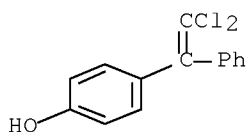
IT 110470-93-4P 129078-21-3P 851295-97-1P
851295-99-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

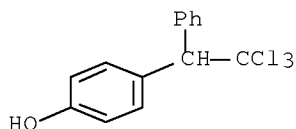
(~~flame-retardant~~ polymers of acrylates and vinyl
derivs. of dichlorodiphenylethylene)

RN 110470-93-4 HCAPLUS

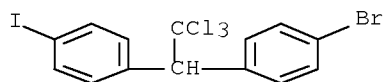
CN Phenol, 4-(2,2-dichloro-1-phenylethenyl)- (CA INDEX NAME)



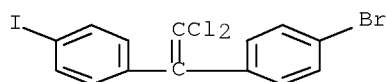
RN 129078-21-3 HCAPLUS
 CN Phenol, 4-(2,2,2-trichloro-1-phenylethyl)- (CA INDEX NAME)



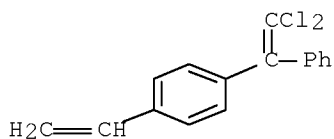
RN 851295-97-1 HCAPLUS
 CN Benzene, 1-[1-(4-bromophenyl)-2,2,2-trichloroethyl]-4-iodo- (CA INDEX NAME)



RN 851295-99-3 HCAPLUS
 CN Benzene, 1-bromo-4-[2,2-dichloro-1-(4-iodophenyl)ethenyl]- (CA INDEX NAME)



IT 851296-03-2P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (flame-retardant polymers of acrylates and vinyl
 derivs. of dichlorodiphenylethylene)
 RN 851296-03-2 HCAPLUS
 CN Benzene, 1-(2,2-dichloro-1-phenylethenyl)-4-ethenyl- (CA INDEX NAME)



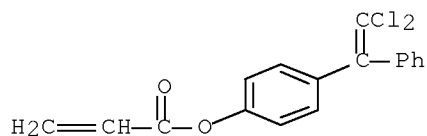
IT 815598-64-2P 851295-95-9P 851296-01-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(monomer; ~~flame-retardant~~ polymers of acrylates and vinyl derivs. of dichlorodiphenylethylene)

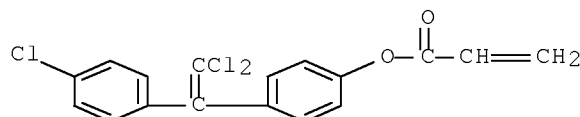
RN 815598-64-2 HCAPLUS

CN 2-Propenoic acid, 4-(2,2-dichloro-1-phenylethenyl)phenyl ester (CA INDEX NAME)



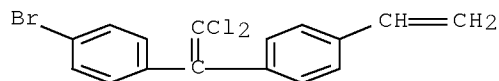
RN 851295-95-9 HCAPLUS

CN 2-Propenoic acid, 4-[2,2-dichloro-1-(4-chlorophenyl)ethenyl]phenyl ester (CA INDEX NAME)



RN 851296-01-0 HCAPLUS

CN Benzene, 1-bromo-4-[2,2-dichloro-1-(4-ethenylphenyl)ethenyl]- (CA INDEX NAME)



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L78 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2003:625689 HCAPLUS Full-text

DN 140:288071

TI A new fire resistant epoxy

AU Lyon, Richard E.; Castelli, Lauren M.; Walters, Richard N.

CS Fire Safety Section AAR-422, W.J. Hughes Technical Center, Federal
Aviation Administration, Atlantic City International Airport, NJ, 08405,
USA

SO Recent Advances in Flame Retardancy of Polymeric Materials (2001), 12,
102-115

CODEN: RAFMFH

PB Business Communications Co.

DT Journal

LA English

AB The flammability, thermomech. properties, and fire response of 1,1-dichloro-
2,2-bis(4-hydroxyphenyl)ethylene diglycidyl ether (DGEBC) cured with several
hardeners were examined and compared to bisphenol A diglycidyl ether (DGEBA)

systems. The DGEBC and DGEBA were cured with triethylenetetramine, methylenedianiline, the parent phenol (BPC or BPA), bisphenol C dicyanate. Cured samples were measured for strength, modulus, flame resistance (LOI, UL-94 V), flaming heat release rate, and heat release capacity. The mech. properties of the DGEBC and DGEBA systems were equivalent but the DGEBC systems exhibited superior flame resistance and 50% lower heat release rate and heat release capacity than the corresponding DGEBA system. The DGEBC cured with methylenedianiline had a limiting oxygen index (LOI) of 30-31, exhibited UL 94 V-0/5V behavior and easily passed the FAA heat release requirement FAR 25.853(a-1) as a single-ply glass fabric laminate.

IT 69488-60-4

RL: PRP (Properties)

(mech. and thermal properties of
dichloro-2,2-bis(4-hydroxyphenyl)ethylene diglycidyl ether-based
fire resistant epoxy)

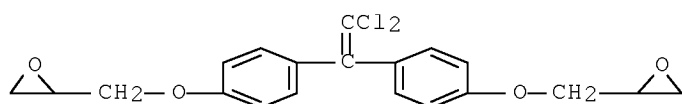
RN 69488-60-4 HCAPLUS

CN Oxirane, 2,2'-[(dichloroethenylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 69415-01-6

CMF C20 H18 Cl2 O4



RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L78 ANSWER 4 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2003:421595 HCAPLUS Full-text

DN 139:165229

TI Novel flame retardant polyarylethers: synthesis and testing

AU Furs, Joshua L.; Tour, James M.

CS Departments of Chemistry and Mechanical Engineering and Materials Science and Center for Nanoscale Science and Technology, Rice University, Houston, TX, 77005, USA

SO Polymer (2003), 44(13), 3709-3714

CODEN: POLMAG; ISSN: 0032-3861

PB Elsevier Science Ltd.

DT Journal

LA English

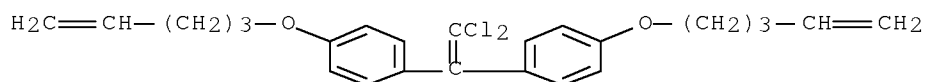
AB Three new polyarylethers based on bisphenol C and its derivs. were synthesized and tested. These new polymers all show a glass transition temperature and are inherently flame resistant and do not require the use of any flame retardant synergist. The new polyarylethers can all be made in 2-3 steps from available raw materials, keeping cost to a min. The thermal and flame retardant properties, such as DSC and UL-94 rating, are examined

IT 575488-35-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(monomer; for synthesis of flame retardant polyarylethers)

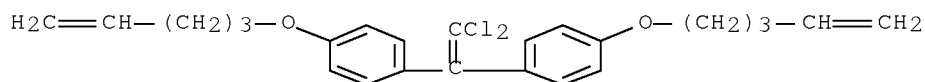
RN 575488-35-6 HCAPLUS
 CN Benzene, 1,1'-(dichloroethenylidene)bis[4-(4-pentenylloxy)- (9CI) (CA INDEX NAME)



IT 575488-36-7P 575488-37-8P, Bisphenol C
 2-trans-1,4-dichloro-2-butene copolymer 575488-38-9P
 575488-39-0P 575488-40-3P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (synthesis and testing of bisphenol C-based flame
 retardant polyarylethers)
 RN 575488-36-7 HCAPLUS
 CN Benzene, 1,1'-(dichloroethenylidene)bis[4-(4-pentenylloxy)-, homopolymer
 (9CI) (CA INDEX NAME)

CM 1

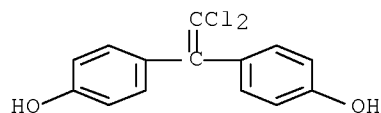
CRN 575488-35-6
 CMF C24 H26 Cl2 O2



RN 575488-37-8 HCAPLUS
 CN Phenol, 4,4'-(dichloroethenylidene)bis-, polymer with
 (2E)-1,4-dichloro-2-butene (9CI) (CA INDEX NAME)

CM 1

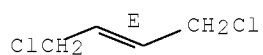
CRN 14868-03-2
 CMF C14 H10 Cl2 O2



CM 2

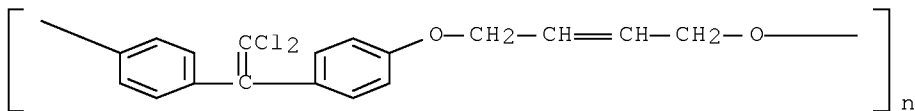
CRN 110-57-6
 CMF C4 H6 Cl2

Double bond geometry as shown.



RN 575488-38-9 HCAPLUS

CN Poly[oxy-(2E)-2-butene-1,4-diyl-oxy-1,4-phenylene(dichloroethenylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)



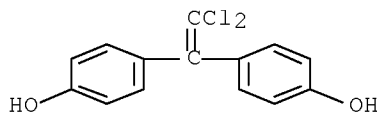
RN 575488-39-0 HCAPLUS

CN Phenol, 4,4'-(dichloroethenylidene)bis-, polymer with 1,5-dibromopentane (9CI) (CA INDEX NAME)

CM 1

CRN 14868-03-2

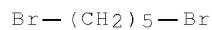
CMF C14 H10 Cl2 O2



CM 2

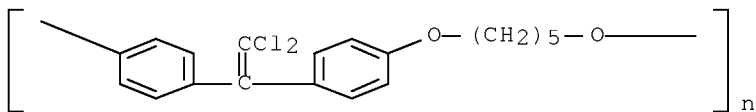
CRN 111-24-0

CMF C5 H10 Br2



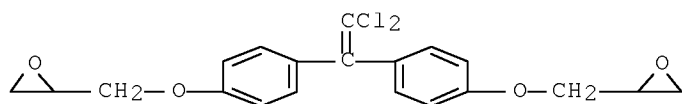
RN 575488-40-3 HCAPLUS

CN Poly[oxy-1,5-pentanediyloxy-1,4-phenylene(dichloroethenylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)



RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L78 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 2001:513583 HCAPLUS Full-text
 DN 136:119392
 TI Flammability and mechanical properties of a new ~~fire~~ resistant epoxy
 AU Lyon, Richard E.; Castelli, Lauren M.
 CS Fire Safety Section AAR-422 W.J. Hughes Technical Center, Federal Aviation Administration, Atlantic City International Airport, NJ, 08405, USA
 SO International SAMPE Symposium and Exhibition (2001), 46(2001: A Materials and Processes Odyssey, Book 2), 1695-1706
 CODEN: ISSEEG; ISSN: 0891-0138
 PB Society for the Advancement of Material and Process Engineering
 DT Journal
 LA English
 AB The flammability, thermomech. properties, and ~~fire~~ response of the diglycidyl ether of 1,1-dichloro-2,2-bis(4-hydroxyphenyl)ethylene (DGEBC) cured with several hardeners were examined and compared to diglycidyl ether of bisphenol A (DGEBA) systems. The DGEBC and DGEBA were cured with triethylenetetramine, methylenedianiline, the parent phenol (BPC or BPA), catalytic amts. of (2-ethyl-4-methylimidazole) (EMI-24), and the dicyanate of bisphenol-C. Cured samples were measured for strength, modulus, flame resistance (LOI, UL-94 V), flaming heat release rate, and heat release capacity. The mech. properties of the DGEBC and DGEBA systems were equivalent but the DGEBC systems exhibited superior flame resistance and 50% lower heat release rate and heat release capacity than the corresponding DGEBA system. The DGEBC cured with methylenedianiline had a limiting oxygen index (LOI) of 30-31, exhibited UL 94 V-0/5V behavior and easily passed the FAA heat release requirement FAR 25.853(a-1) as a single-ply glass fabric lamina.
 IT ~~69488-60-4~~
 RL: PRP (Properties)
 (flammability and mech. properties of novel ~~fire~~-resistant epoxy resins)
 RN 69488-60-4 HCAPLUS
 CN Oxirane, 2,2'-[(dichloroethenylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 69415-01-6
 CMF C20 H18 Cl2 O4



RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L78 ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 2000:666698 HCAPLUS Full-text
 DN 133:253238
 TI Aromatic cyanate esters having flame resistant properties, compositions containing them or their cyclotrimerized products, and cured articles therefrom
 IN Lin, Bor-sheng; Amone, Michael James

PA Vantico A.-G., Switz.
 SO PCT Int. Appl., 29 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000055123	A1	20000921	WO 2000-EP1696	20000229
	W: BR, CA, CN, IN, JP, KR, SG				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6242638	B1	20010605	US 1999-267585	19990312
	CA 2360811	A1	20000921	CA 2000-2360811	20000229
	EP 1161414	A1	20011212	EP 2000-914096	20000229
	EP 1161414	B1	20031001		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 2000008921	A	20011218	BR 2000-8921	20000229
	JP 2002539189	T	20021119	JP 2000-605554	20000229
	AT 251124	T	20031015	AT 2000-914096	20000229
	ES 2206207	T3	20040516	ES 2000-914096	20000229
	TW 258464	B	20060721	TW 2000-89104348	20000310
	US 20020055648	A1	20020509	US 2001-773305	20010131
	US 6458993	B2	20021001		
	IN 2001CN01191	A	20070309	IN 2001-CN1191	20010828
PRAI	US 1999-267585	A	19990312		
	WO 2000-EP1696	W	20000229		

OS MARPAT 133:253238

AB The present invention relates to novel aromatic cyanate ester compds. containing at least two rings linked by a group containing an unsatd. group. The present invention further relates to compns. and prepolymers of said novel aromatic cyanate ester compds. The present invention further relates to a process for preparing said compds. and cured articles resulting from curable mixts. thereof. Thus, 354 g phenol was reacted with 200 g chloral at room temperature for 18 h in the presence of H₂SO₄ to give 423 g 1,1,1-trichloro-2,2-bis(4-hydroxyphenyl)ethane, KOH and MeOH were added and heated at 50° for 2.5 h, neutralized with HCl to give 1,1-dichloro-2,2-bis(4-cyanatophenyl)ethylene, 320 g of which was mixed with 270 g cyanogen bromide to give a cyanate ester resin. The resin (12 g) was mixed with 12 mg 6% manganese octoate and cured at 160° for 1 h and 220° for 2 h showing peak heat release rate 8.0 J/g-K and total heat release 1.8 kJ/g, compared with 41.9 and 6.2, resp., for phenol formaldehyde resin.

IT 294864-26-9P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of aromatic cyanate esters giving heat resistant cured

articles)

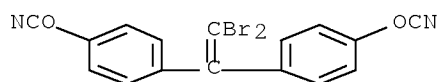
RN 294864-26-9 HCAPLUS

CN Cyanic acid, (dibromoethenylidene)di-4,1-phenylene ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 294864-20-3

CMF C16 H8 Br2 N2 O2

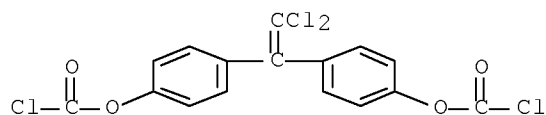


RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L78 ANSWER 7 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1994:245869 HCAPLUS Full-text
DN 120:245869
OREF 120:43619a,43622a
TI Scope and limitations of copolycarbonate formation via cyclic oligomeric aromatic carbonates
AU Brunelle, Daniel J.; Shannon, Thomas G.
CS GE Corp. Res. and Dev., Schenectady, NY, 12301, USA
SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1992), 33(1), 1198-9
CODEN: ACPPAY; ISSN: 0032-3934
DT Journal
LA English
AB Various cyclic polycarbonates from bisphenol A-chloroformate and bisphenol derivs. are prepared and characterized. The limitations of polymer formation, thermal and mol. weight characteristics of the polymers are also discussed.
IT ~~149446-14-0P~~
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of cyclic)
RN 149446-14-0 HCAPLUS
CN Carbonochloridic acid, (dichloroethenylidene)di-4,1-phenylene ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 17854-02-3
CMF C16 H8 Cl4 O4



L78 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1993:517854 HCAPLUS Full-text
DN 119:117854
OREF 119:21235a,21236a
TI Recent advances in the chemistry of aromatic cyclic oligomers
AU Brunelle, Daniel J.
CS GE Corp. Res. Dev., Schenectady, NY, 12301, USA
SO Makromolekulare Chemie, Macromolecular Symposia (1992), 64(International Symposium on New Polymers, 1991), 65-74
CODEN: MCMSES; ISSN: 0258-0322
DT Journal
LA English

AB Cyclic polycarbonate oligomers containing bisphenol A (I) with other bisphenols, and those containing no I, were prepared and polymerized by ring opening to give high-mol.-weight polycarbonates containing few cyclic units. Glass temperature and other properties could be controlled by the amount and nature of the other bisphenol. The ring-opening polymerization was essentially thermoneutral ($\Delta H = -1.2 \text{ kJ/mol}$), but proceeded to completion giving polymer with <0.5% cyclic oligomers and polydispersity .apprx.2. Formation of the homocyclooligomers, those containing no I, took place only for those bisphenols with pKa near that of I.

IT 149446-14-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(cyclic oligomers, preparation and ring-opening polymerization of)

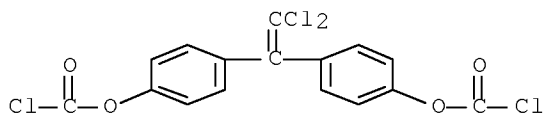
RN 149446-14-0 HCAPLUS

CN Carbonochloridic acid, (dichloroethenylidene)di-4,1-phenylene ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 17854-02-3

CMF C16 H8 C14 O4



L78 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1990:601376 HCAPLUS Full-text

DN 113:201376

OREF 113:33873a,33876a

TI Electrophotographic photoreceptor containing polyphenylenevinylene charge-transporting agent

IN Tsukamoto, Koji; Ogata, Michiko

PA Fujitsu Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

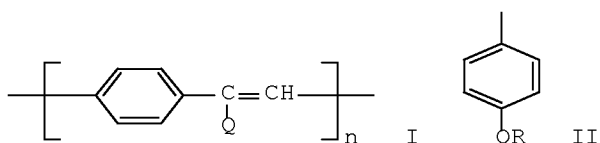
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02090173	A	19900329	JP 1988-241812	19880927
PRAI	JP 1988-241812		19880927		
GI					



AB The laminated photoreceptor consists of a conductive substrate coated with a charge-generating layer and a charge-transporting layer containing polyphenylenevinylene derivative. The derivative may be I (Q = N-carbazolyl, II, anthryl, α -naphthyl; R = C1-6 alkyl). Carbazolyldichlorotolylmethane was treated with pyridine and o-dichlorobenzene to give I (Q = N-carbazolyl) (III). A photoreceptor using Al chloride phthalocyanine and III showed excellent photosensitivity, durability in repeating use, and low residual current.

IT 129955-94-8

RL: TEM (Technical or engineered material use); USES (Uses)
(electrophotog. photoreceptor charge-transporting agent)

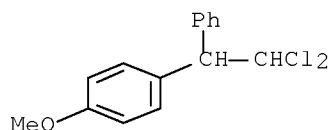
RN 129955-94-8 HCAPLUS

CN Benzene, 1-(2,2-dichloro-1-phenylethyl)-4-methoxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 129955-93-7

CMF C15 H14 Cl2 O



L78 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1985:25142 HCAPLUS Full-text

DN 102:25142

OREF 102:4163a,4166a

TI Oligomers and polymers of polyethers and polyformals

AU Hay, A. S.; Williams, F. J.; Relles, H. M.; Boulette, B. M.

CS Corp. Res. Dev., Gen. Electr. Co., Schenectady, NY, 12301, USA

SO Journal of Macromolecular Science, Chemistry (1984), A21(8-9), 1065-79

CODEN: JMCHBD; ISSN: 0022-233X

DT Journal

LA English

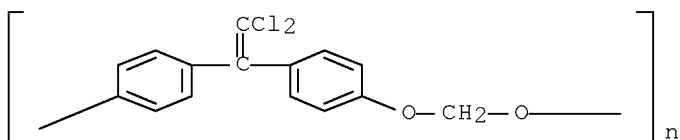
AB Linear high-mol.-weight aromatic polyformals are readily obtained from bisphenols and excess CH₂Cl₂ with solid NaOH or KOH in the presence of a phase-transfer catalyst or an aprotic dipolar solvent. By control of the stoichiometry, bifunctional oligomers can be obtained which can subsequently be incorporated into a variety of block copolymers.

IT 66983-28-6P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of)

RN 66983-28-6 HCAPLUS

CN Poly[oxyethyleneoxy-1,4-phenylene(dichloroethenylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)



L78 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1984:175452 HCAPLUS Full-text

DN 100:175452

OREF 100:26707a,26710a

TI Synthesis of new aromatic polyformals

AU Hay, A. S.; Williams, F. J.; Loucks, G. M.; Relles, H. M.; Boulette, B. M.; Donahue, P. E.; Johnson, D. S.

CS Gen. Electr. Co., Schenectady, NY, 12301, USA

SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1982), 23(2), 117-18

CODEN: ACPPAY; ISSN: 0032-3934

DT Journal

LA English

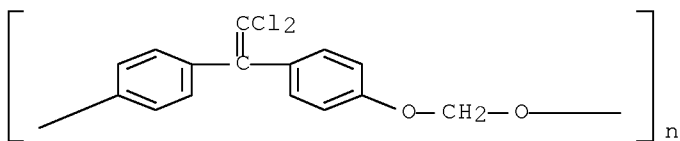
AB Polymerization of bisphenol A (I) with CH_2Cl_2 [75-09-2] gave high-mol.-weight polyformal [66983-33-3]. The cyclic content in these polymers ranged from 10% when prepared in N-methylpyrrolidone (II) to 40-50% when prepared using phase-transfer catalysts. The unusual product distribution was caused by the low solubility of the I dianion in solution and the much faster rate of reaction of the intermediate PhOCH_2Cl vs. CH_2Cl_2 . 4-Methylphenol [106-44-5] was used as a model compound in the study of phase-transfer reaction with CH_2Cl_2 . The use of large amts. of phase-transfer catalyst such as Bu_4NBr [1643-19-2] sufficiently solubilized the I dianion to give results similar to those obtained when II was used.

IT 66983-28-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of)

RN 66983-28-6 HCAPLUS

CN Poly[oxyethyleneoxy-1,4-phenylene(dichloroethenylidene)-1,4-phenylene]
(9CI) (CA INDEX NAME)



L78 ANSWER 12 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1981:534501 HCAPLUS Full-text

DN 95:134501

OREF 95:22523a,22526a

TI Cyclic polyformals

IN Hay, Allan S.

PA General Electric Co., USA

SO U.S., 3 pp. Cont.-in-part of U.S. Ser. No. 739,562, abandoned.

CODEN: USXXAM

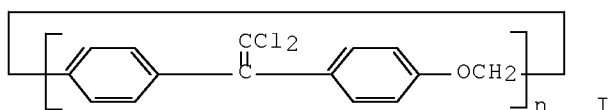
DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4254252	A	19810303	US 1978-905637	19780515
	GB 1555384	A	19791107	GB 1977-37403	19770907
	JP 53058600	A	19780526	JP 1977-114487	19770922
	FR 2370066	A1	19780602	FR 1977-32234	19771026
	SU 776564	A3	19801030	SU 1977-2531953	19771026
	CA 1117247	A1	19820126	CA 1977-289785	19771028
PRAI	US 1976-739562	A2	19761108		

GI



AB Cyclic polyformals (d.p. 2-25) are useful as solvent-resistant wire coatings. Thus, NaOH 7.8, (p-HOC₆H₄)₂C:CCl₂ 30, CH₂Cl₂ 78, and N-methylpyrrolidone 80 parts are refluxed 90 min. NaOH (1.3 part) and 4 parts p-tert-butylphenol are added and the mixture is refluxed 5 h to give 12-15% copolymer [77416-90-1] (I). A saturated CH₂Cl₂ solution is dip-coated on wire to give good insulating and flame retardant properties.

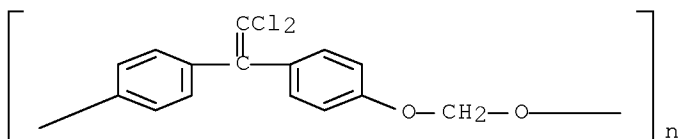
IT 66983-28-6

RL: USES (Uses)

(cyclic oligomeric, wire enamels, fire-resistant)

RN 66983-28-6 HCAPLUS

CN Poly[oxyethyleneoxy-1,4-phenylene(dichloroethenylidene)-1,4-phenylene]
(9CI) (CA INDEX NAME)



L78 ANSWER 13 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1981:425883 HCAPLUS Full-text

DN 95:25883

OREF 95:4531a,4534a

TI Aromatic polyformals

IN Loucks, George R.; Williams, Frank J., III

PA General Electric Co. , USA

SO U.S., 5 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI US 4260733 A 19810407 US 1978-889397 19780323
 PRAI US 1978-889397 19780323

AB Aromatic polyformals containing $\leq 1\%$ cyclic polyformals are prepared by polymerizing bisphenols with methylene halides, diluting with organic solvents, filtering, and adding antisolvents to precipitate the desired polyformals. Thus, a mixture of $\text{Cl}_2\text{C}:\text{C}(\text{C}_6\text{H}_4\text{OH}-p)_2$ 30, N-methyl-2-pyrrolidone 82, CH_2Cl_2 80, and NaOH 7.8 parts, was refluxed 90 min at 70° , mixed with 1.3 parts NaOH and 0.145 parts p-tert-Bu $\text{C}_6\text{H}_4\text{OH}$, refluxed 90 min, cooled to room temperature, mixed with 495 parts PhCl , filtered through Hyflo-Supercel, and mixed with 450 parts 50:50 MeOH-Me $_2\text{CO}$ containing 1 weight% AcOH to give approx. 75% yield polyformal [66983-28-6] precipitate with intrinsic viscosity 0.56 dL/g (CHCl_3 , 25°) and 1% cyclic polyformal content.

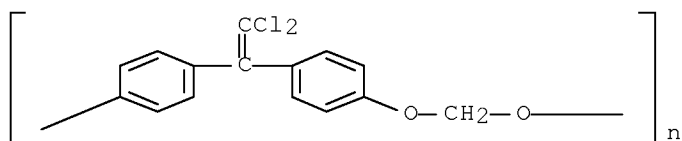
IT 66983-28-6F

RL: PREP (Preparation)

(preparation of, with low cyclic polyformal content)

RN 66983-28-6 HCAPLUS

CN Poly[oxyethyleneoxy-1,4-phenylene(dichloroethenylidene)-1,4-phenylene]
 (9CI) (CA INDEX NAME)



L78 ANSWER 14 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1981:84678 HCAPLUS Full-text

DN 94:84678

OREF 94:13827a,13830a

TI Molecular structure effects on the dynamic mechanical spectra of polycarbonates

AU Yee, A. F.; Smith, S. A.

CS Res. Dev. Cent., Gen. Electr. Co., Schenectady, NY, 12301, USA

SO Macromolecules (1981), 14(1), 54-64

CODEN: MAMOBX; ISSN: 0024-9297

DT Journal

LA English

AB Dynamic mech. spectra of bisphenol A polycarbonate [24936-68-3] and analogous polycarbonates (in which substitutions were made to the carbonyl, isopropylidene, and aromatic protons) are given. The measurements provided information on the secondary relaxations. The low-temperature γ relaxation was associated with the motion of the monomer unit as a whole, while the intermediate β relaxation was probably due to packing defects in the glassy state. It was suggested that center group substitutions would be of the greatest utility in improving high-temperature performance.

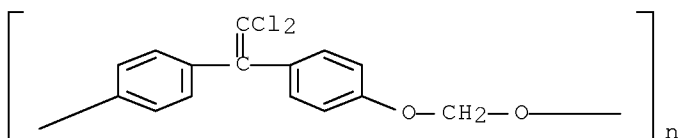
IT 66983-28-6

RL: PRP (Properties)

(dynamic mech. relaxation of, structure in relation to)

RN 66983-28-6 HCAPLUS

CN Poly[oxyethyleneoxy-1,4-phenylene(dichloroethenylidene)-1,4-phenylene]
 (9CI) (CA INDEX NAME)



L78 ANSWER 15 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1978:511207 HCAPLUS Full-text

DN 89:111207

OREF 89:17175a,17178a

TI Film-forming, moldable aromatic polyformal resins

IN Hay, Allan Stuart

PA General Electric Co., USA

SO Ger. Offen., 24 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	DE 2738962	A1	19780511	DE 1977-2738962	19770830
	GB 1555384	A	19791107	GB 1977-37403	19770907
	JP 53058600	A	19780526	JP 1977-114487	19770922
	FR 2370066	A1	19780602	FR 1977-32234	19771026
	SU 776564	A3	19801030	SU 1977-2531953	19771026
	CA 1117247	A1	19820126	CA 1977-289785	19771028
PRAI	US 1976-739562	A	19761108		

AB Aromatic polyformal resins of unit structure -OROCH2- (R = C6-30 arylene) of intrinsic viscosity 0.3 dL/g (CHCl3, 25°C) are prepared from bisphenols and methylene halides in a mixture containing an excess of the latter monomer and alkali metal hydroxide. Thus, bisphenol A 114, KOH 95, Aliquat 336 233, and CH2Cl2 1009 parts were refluxed 21 h under N, giving a 70% yield of a polymer [66983-33-3] which had -p-OC6H4CMe2C6H4OCH2-p- units, glass temperature 85°C, intrinsic viscosity 0.60 dL/g, tensile yield stress 7000-8000 psi, tensile strength 7100-500 psi, elongation 110%, d. 1.10 g/cm³, bending strength 14,300 psi, bending modulus 4.1 + 105 psi at 73°F, and Gardner impact strength >320 in.-lb, and could be cast or molded into tough, colorless, flexible, transparent films.

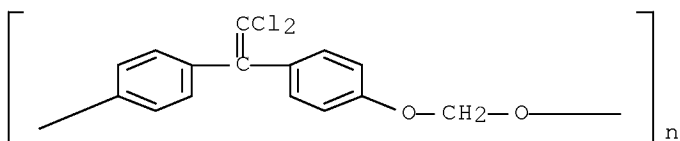
IT ~~66983-28-6P~~ ~~66983-29-7P~~

RL: PREP (Preparation)

(manufacture of film-forming)

RN 66983-28-6 HCAPLUS

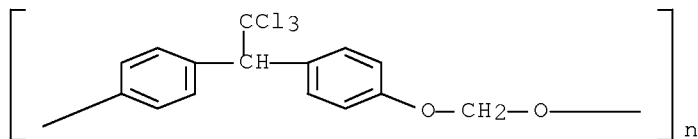
CN Poly[oxyethyleneoxy-1,4-phenylene(dichloroethenylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)



RN 66983-29-7 HCAPLUS

CN Poly[oxyethyleneoxy-1,4-phenylene(2,2,2-trichloroethylidene)-1,4-

phenylene] (9CI) (CA INDEX NAME)



L78 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1976:18172 HCAPLUS Full-text

DN 84:18172

OREF 84:3021a,3024a

TI Self-extinguishing epoxy resins and compositions. VI. Dielectric properties of epoxy resins prepared from 2,2-bis(p-hydroxyphenyl)-1,1,1-trichloroethane

AU Brzozowski, Zbigniew K.; Drzewiecka, Sylwestra

CS Inst. Chem. Technol. Org., Politech. Warsaw, Warsaw, Pol.

SO Polimery (Warsaw, Poland) (1975), 20(5), 214-17

CODEN: POLIA4; ISSN: 0032-2725

DT Journal

LA Polish

AB Dielec. constant, loss and strength, and elec. resistance (bulk and surface) of ES-20 (I) (2,2-bis(p-hydroxyphenyl)-1,1,1-trichloroethane-epichlorohydrin copolymer) [26808-87-7], ES-28 (II) (2,2-bis(p-hydroxyphenyl)-1,1,1-trichloroethane-bisphenol A-epichlorohydrin copolymer) [35618-04-3], and ES-4 (III) (diglycidyl ether of 2,2-bis(p-hydroxyphenyl)-1,1,1-trichloroethane) [57418-32-3] crosslinked with phthalic anhydride [85-44-9] or p-aminophenyl sulfone [80-08-0] were determined and compared with corresponding values of Epidian 3. Dielec. loss tangents ($\tan \delta$) depended on the nature of the resin and the crosslinking agent as well as the amount of the latter. At .apprx.100-140° $\tan \delta$ values of I, II, and III were less sensitive to increasing temps. than those of Epidian 3, whereas dielec. properties of all resins at .apprx.40° were nearly the same. Variations in dielec. properties at elevated temps. of I, II, III crosslinked with phthalic anhydride were significantly lower than those resins crosslinked with sulfone, indicating greater suitability of the former as elec. insulators.

IT 57418-32-3

RL: USES (Uses)

(crosslinked with p-aminophenyl sulfone and phthalic anhydride, dielec. properties of)

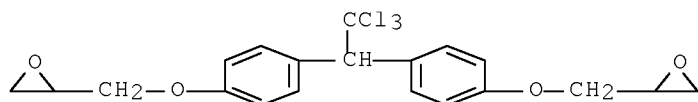
RN 57418-32-3 HCAPLUS

CN Oxirane, 2,2'-[(2,2,2-trichloroethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 57418-31-2

CMF C20 H19 Cl3 O4



L78 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1975:594603 HCAPLUS Full-text

DN 83:194603

OREF 83:30632h,30633a

TI Flame-resistant polycarbonate composition

IN Mark, Victor; Hoogeboom, Thomas J.

PA General Electric Co., USA

SO Ger. Offen., 22 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2461146	A1	19750911	DE 1974-2461146	19741223
	DE 2461146	C2	19870507		
	US 3933734	A	19760120	US 1973-429643	19731228
	CA 1061923	A1	19790904	CA 1974-213017	19741105
	AU 7475866	A	19760603	AU 1974-75866	19741128
	BR 7410863	D0	19750902	BR 1974-10863	19741216
	GB 1495969	A	19771221	GB 1974-54239	19741216
	NL 7416730	A	19750701	NL 1974-16730	19741220
	JP 50098546	A	19750805	JP 1974-147477	19741220
	JP 57043100	B	19820913		
	FR 2256217	A1	19750725	FR 1974-43095	19741227
	FR 2256217	B1	19790316		
	US 4115354	A	19780919	US 1976-650654	19760120
PRAI	US 1973-429643	A	19731228		
	US 1975-626937	A	19751029		

GI For diagram(s), see printed CA Issue.

AB A bisphenol A-phosgene copolymer (I) [25971-63-5] was mixed with 0.01-1.0% PhSO₃Na [515-42-4], PhSO₃Sr [16067-69-9], o-C₆H₄(SO₃K)₂ [5710-54-3], di-Na 2,6-naphthalenedisulfonate (II) [1655-45-4], the Na salt of sulfonated polystyrene [9003-53-6], III (1 SO₃Na/5.6 repeating units, mol. weight 1080), or a similar compound to prepare flame-resistant compns. with SE-II ratings in burning tests. Thus, I was mixed with 0.01% II.

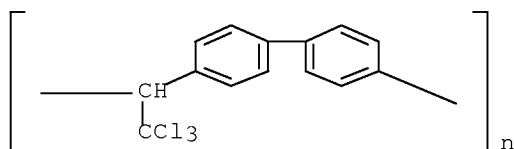
IT ~~53895-70-8D~~, Poly[[1,1'-biphenyl]-4,4'-diyl(2,2,2-trichloroethylidene)], sulfonated, sodium salt ~~57214-62-7D~~, Poly[[1,1'-biphenyl]-4,4'-diyl(2,2-dichloroethylidene)], sulfonated, sodium salt

RL: USES (Uses)

(fireproofing by, of polycarbonates)

RN 53895-70-8 HCAPLUS

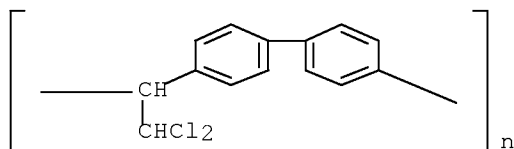
CN Poly[[1,1'-biphenyl]-4,4'-diyl(2,2,2-trichloroethylidene)] (9CI) (CA INDEX NAME)



RN 57214-62-7 HCAPLUS

CN Poly[[1,1'-biphenyl]-4,4'-diyl(2,2-dichloroethylidene)] (9CI) (CA INDEX NAME)

NAME)



L78 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1975:594484 HCAPLUS Full-text

DN 83:194484

OREF 83:30613a,30616a

TI Flame-resisting polycarbonate composition

IN Mark, Victor

PA General Electric Co., USA

SO Ger. Offen., 32 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2461063	A1	19750710	DE 1974-2461063	19741223
	DE 2461063	C2	19870514		
	US 3940366	A	19760224	US 1973-429120	19731228
	AU 7475862	A	19760603	AU 1974-75862	19741128
	GB 1496679	A	19771230	GB 1974-54238	19741216
	CA 1062388	A1	19790911	CA 1974-216283	19741216
	NL 7416732	A	19750701	NL 1974-16732	19741220
	JP 50098545	A	19750805	JP 1974-147476	19741220
	JP 57043099	B	19820913		
	BR 7410862	D0	19750902	BR 1974-10862	19741226
	FR 2256210	A1	19750725	FR 1974-43088	19741227
	FR 2256210	B1	19810522		
PRAI	US 1973-429120	A	19731228		
	US 1975-626936	A	19751029		

AB Aromatic polycarbonates are ~~fireproofed~~ without degradation of phys. properties by addition of 0.1-10% alkali or alkaline earth salt of an electroneg. substituted aromatic sulfonic acid. Thus, bisphenol A-phosgene polymer [25971-63-5] (intrinsic viscosity 0.57) is mixed at 265° with 1% 2,5-F2C6H3SO3Na [57004-45-2] and injection molded at 315° to samples having burning time 4.6 sec, drop formation 0.8/sample, and flammability rating (UL-94) SE-II; compared with 31.6, >4, and flammable, resp., in the absence of sulfonate.

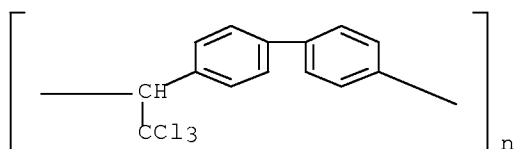
IT ~~53895-70-8D~~, Poly[[1,1'-biphenyl]-4,4'-diyl(2,2,2-trichloroethylidene)], sulfonated, calcium salt ~~56992-56-4D~~, Poly[[1,1'-biphenyl]-4,4'-diyl(dichloroethenylidene)], sulfonated, sodium salt

RL: USES (Uses)

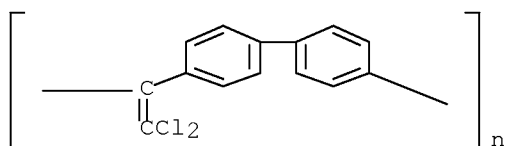
(fire retardants, for polycarbonates)

RN 53895-70-8 HCAPLUS

CN Poly[[1,1'-biphenyl]-4,4'-diyl(2,2,2-trichloroethylidene)] (9CI) (CA INDEX NAME)



RN 56992-56-4 HCAPLUS
 CN Poly[[1,1'-biphenyl]-4,4'-diyl(dichloroethenylidene)] (9CI) (CA INDEX NAME)



L78 ANSWER 19 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1975:44285 HCAPLUS Full-text

DN 82:44285

OREF 82:7061a,7064a

TI Arylmethylene polymers

IN Takekoshi, Tohru; Webb, Jimmy Lyn

PA General Electric Co.

SO Ger. Offen., 30 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2412212	A1	19740926	DE 1974-2412212	19740314
	US 3855181	A	19741217	US 1973-343138	19730320
	GB 1445804	A	19760811	GB 1974-12302	19740312
	JP 50026896	A	19750319	JP 1974-30699	19740319
	JP 57036930	B	19820806		
	FR 2222397	A1	19741018	FR 1974-9405	19740320
	FR 2222397	B1	19801121		
	IT 1007397	B	19761030	IT 1974-20529	19740408
	US 29617	E	19780425	US 1977-779154	19770318
PRAI	US 1973-343138	A	19730320		

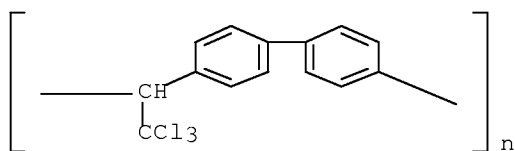
AB The polymers [-RORCH(CCl₃)-]_n, [-RORSO₂RORCH(CO₂H)-]_n, [-ROCH₂CH₂ORCH(CO₂H)-]_n, and [-R(OCH₂CH₂)₂ORCH(CCl₃)-]_n with R = p-phenylene and 14 similar polymers were prepared from chloral, chloral hydrate, glyoxalic acid hydrate, or bromal (in 1 case) and Ph₂O, bis(4-phenoxyphenyl) sulfone, biphenyl, 1,2-bis(2-methylphenoxy)ethane (I), or a similar compound in the presence of a strong acid. Thus, 3.59 g chloral and 5.90 g I in 80 ml PhNO₂ at 14° were treated with 18.34 g HF, stirred 1 hr, treated with 12.63 g HF, and stirred 20 hr to prepare a copolymer [53223-38-4] with [η] 0.33 dl/g (CHCl₃) which was cast as a CH₂Cl₂ solution to give a flexible film.

IT 53895-70-8P 53895-74-2P 53895-93-5P
 53895-95-7P 53895-98-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

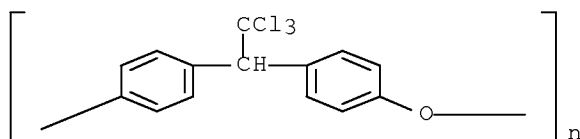
RN 53895-70-8 HCAPLUS

CN Poly[[1,1'-biphenyl]-4,4'-diyl(2,2,2-trichloroethylidene)] (9CI) (CA INDEX NAME)



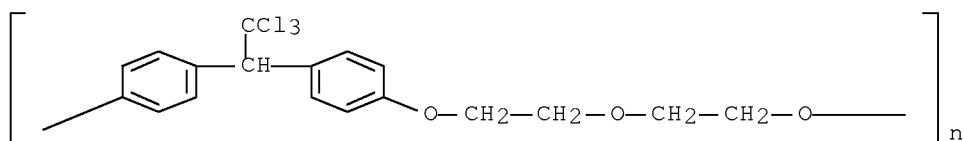
RN 53895-74-2 HCAPLUS

CN Poly[oxy-1,4-phenylene(2,2,2-trichloroethylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)



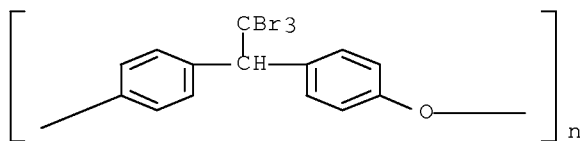
RN 53895-93-5 HCAPLUS

CN Poly[oxy-1,2-ethanediyl(oxy-1,2-ethanediyl(oxy-1,4-phenylene(2,2,2-trichloroethylidene)-1,4-phenylene)] (9CI) (CA INDEX NAME)



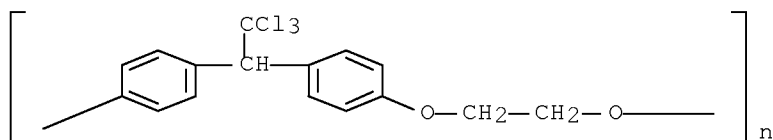
RN 53895-95-7 HCAPLUS

CN Poly[oxy-1,4-phenylene(2,2,2-tribromoethylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)



RN 53895-98-0 HCAPLUS

CN Poly[oxy-1,2-ethanediyl(oxy-1,4-phenylene(2,2,2-trichloroethylidene)-1,4-phenylene)] (9CI) (CA INDEX NAME)



=> d his

(FILE 'HOME' ENTERED AT 14:09:43 ON 30 DEC 2008)
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 14:09:54 ON 30 DEC 2008

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L1      1 S US20060178462/PN OR (US2005-560291# OR WO2004-US19414 OR US20
      E TOUR/AU
L2      507 S E10,E12-E15
      E JURS/AU
L3      7 S E7,E8
      E STEPHENSON/AU
      E STEPHENSON J/AU
L4      54 S E3,E54-E55
      E WILLIAM MARSH/CO
      E WILLIAM MARCH/CO
L5      654 S E4-E11/CO,PA,CS
      E W MARCH/CO
L6      1 S E4/CO,PA,CS
      E WM MARCH/CO
L7      24 S E4/CO,PA,CS
      E WI MARCH/CO
      E WIL MARCH/CO
      E WILL MARCH/CO
      E WILLIAM MARSH/CO
      E E4+ALL
      E E1+ALL
L8      12930 S E2+RT OR E2-E7/PA,CS
      SEL RN L1
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FILE 'REGISTRY' ENTERED AT 14:13:27 ON 30 DEC 2008

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L9      10 S E1-E10
L10     4 S L9 AND 2/NR
L11     STR
L12     50 S L11
L13     STR L11
L14     50 S L13
L15     STR L13
L16     50 S L15 CSS SAM
L17     1474 S L15 CSS FUL
      SAV TEMP L17 HUHN560A/A
L18     1405 S L17/COM
L19     69 S L17 NOT L18
L20     358 S L18 AND PMS/CI
L21     103 S L20 AND 1/NC
L22     20 S L21 AND (C14H9CL3O OR C14H10CL4 OR C17H12CL2O2 OR C16H8BR2N2O
L23     5 S L21 AND (C15H14CL2O OR C14H10CL2 OR C19H18CL2O2 OR C16H8CL4O4
L24     25 S L22,L23
L25     255 S L20 NOT L21
L26     STR L15
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L27 44 S L26 CSS SAM SUB=L18
 L28 959 S L26 CSS FUL SUB=L18
 SAV TEMP L28 HUHN560B/A
 L29 183 S L28 AND L20
 L30 162 S L29 NOT L21
 L31 21 S L29 NOT L30
 L32 8 S L31 NOT L24
 SAV TEMP L24 HUHN560C/A
 E C7H5CLO/MF
 L33 64 S E3 AND C6/ES
 L34 57 S L33 AND 46.150.18/RID
 L35 23 S L34 NOT BENZALDEHYDE
 L36 34 S L34 NOT L35
 L37 1 S L36 AND BENZALDEHYDE, 4-CHLORO-/CN
 E C7H5BRO/MF
 L38 23 S E3 AND 46.150.18/RID
 L39 1 S L38 AND BENZALDEHYDE, 4-BROMO-/CN
 L40 1 S L9 AND C7H6O
 L41 1 S L9 AND C5H12O3
 L42 1 S L9 AND C6H6O

FILE 'HCAPLUS' ENTERED AT 14:46:16 ON 30 DEC 2008

L43 27 S L24
 L44 72040 S L37,L39,L40
 L45 64 S L44 AND L41
 L46 30 S L45 AND L42
 L47 1 S L46 AND L43
 L48 2 S L43 AND L44
 L49 1 S L43 AND L45
 L50 2 S L47-L49
 L51 4 S L43 AND FLAME(L)RETARD?
 L52 4 S L50,L51
 E FLAME RETARD/CT
 E E4+ALL
 E E2+ALL
 L53 30702 S E2,E3
 E E17+ALL
 L54 10287 S E2
 E E4+ALL
 L55 27075 S E2+OLD
 E E8+ALL
 E E6+ALL
 L56 6008 S E3+OLD
 E E6+ALL
 L57 3644 S E2
 E E6+ALL
 L58 121166 S E1+NT
 L59 10 S L43 AND L53-L58
 L60 10 S L52,L59
 L61 3 S L43,L60 AND L1-L8
 L62 549 S L2-L4 NOT L1

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FILE 'HCAPLUS' ENTERED AT 14:50:05 ON 30 DEC 2008

L63 TRA L62 1- RN : 3567 TERMS

FILE 'REGISTRY' ENTERED AT 14:50:19 ON 30 DEC 2008

L64 3567 SEA L63
 L65 17 S L64 AND L17

L66 11 S L65 NOT L24

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L67 5 S L66
L68 3 S L67 AND L1-L8
L69 29 S L43,L52,L60,L61,L67,L68
L70 27 S L69 AND L1-L8,L43-L62
L71 10 S L69 AND (FLAM?(L)RETARD? OR FIRE?)
L72 9 S L60 AND FIRE?/CW,CT
L73 10 S L71,L72
L74 10 S L68,L73
L75 19 S L69 NOT L74
SEL DN AN 1 2 3 11 13 14 15 17 18
L76 9 S E1-E27 AND L75
L77 19 S L74,L76
L78 19 S L77 AND L1-L8,L43-L62,L67-L77

FILE 'REGISTRY' ENTERED AT 14:56:24 ON 30 DEC 2008

FILE 'HCAPLUS' ENTERED AT 14:56:46 ON 30 DEC 2008

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